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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/735,490

12/12/2003

Matthias Krull

2002DE444

1878

7590

12/28/2006

Clariant Corporation  
Industrial Property Department  
4000 Monroe Road  
Charlotte, NC 28205

EXAMINER

TOOMER, CEPHIA D

ART UNIT

PAPER NUMBER

1714

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

12/28/2006

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/735,490	<b>Applicant(s)</b> KRULL ET AL.	
	<b>Examiner</b> Cephia D. Toomer	<b>Art Unit</b> 1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 13 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 and 19-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Applicant's election with traverse of Group I and Group III in its amended form in the reply filed on October 13, 2006 is acknowledged. The traversal is on the ground(s) that if the search for all the claims in the application can be made without serious burden then the examiner should examine them on the merits. This is not found persuasive because a search for a copolymer outside of the fuel art would be a serious burden on the examiner.

The requirement is still deemed proper and is therefore made FINAL.

It should be noted that the form paragraph regarding election of species was inadvertently inserted into the office action. Applicant should disregard the request for an election of species.

### ***Specification***

2. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 1-14, 16 17, 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown (US 5,906,663) in view of Murakami (US 5,730,762).

Brown teaches a fuel oil composition having improved low temperature properties wherein the composition comprises an ethylene/vinyl acetate/vinyl carboxylate having a tertiary alkyl group of 8 or more carbon atoms (see abstract; col. 2, lines 6-25; col. 4, lines 39-41). Vinyl acetate is Applicant's formula 3 monomer and vinyl carboxylate is Applicant's formula 2 monomer.

The terpolymer has a molecular weight in the range of 3,000 to 20,000 (see col. 3, lines 61-66). The vinyl acetate, vinyl carboxylate and additional monomers which may be present in the polymer represent 2.3 to 35 molar percent of the polymer. The additional monomer may be an olefin. The vinyl acetate and vinyl carboxylate are present in a molar percentage of 1-9 (vinyl acetate) and 4-13 (vinyl carboxylate) (see col. 3, lines 57-60; col. 3, lines 18-32). The degree of branching of the terpolymer is preferably 6 CH<sub>3</sub> groups/100 CH<sub>2</sub> units (see col. 4, lines 1-4). Since Brown teaches the same terpolymers as of the present invention, it would be reasonable to expect that the melt viscosity of the terpolymer would be the same or similar to that of claims 8 and 26, absent evidence to the contrary.

Brown teaches that additional copolymers may be present in the fuel oil composition and that these copolymers comprise ethylene vinyl ester copolymers (see col. 4, lines 10-19).

Brown teaches that fuel oil may be a middle distillate fuel having a boiling point within the range of 100 °C to about 500 °C (see col. 5, lines 24-43).

Co-additives may be present in combination with the terpolymers. Such additives include additional cold flow improvers such as comb polymers, polar nitrogen compounds and polyoxyalkylene compounds (see col. 6, lines 15-20). Brown teaches the limitations of the claims other than the differences that are discussed below.

In the first aspect, Brown differs from the claims in that he does not teach that the fuel oil has a sulfur content of at most 350 ppm, aromatics content of at most 22%, a density of less than 0.84, a 90-20% boiling range of less than 110 °C and a paraffin content of more than 3% by weight (claims 1, 9-12 and 27-30). However, Murakami teaches these differences.

Murakami teaches a gas oil obtained by subjecting paraffin containing crude oil to atmospheric distillation and hydrogenation (see abstract; col. 1, lines 56-60). This teaching suggests the claimed percentage of paraffins. In the examples of col. 3 and 4, Murakami exemplifies oils wherein the sulfur content is less than 350 ppm and the aromatics content is less than 22.

In Table 1, Murakami exemplifies oil wherein the density is less than 0.84 g/cm and the 90-20% boiling range is less than 110 °C.

It would have been obvious to one of ordinary skill in the art too have used the claimed fuel oil because Brown teaches that the fuel oil of his invention has a boiling point within the range of 100- 500 °C and is suitable for use in cold districts and Murakami teaches that his oils are suitable for use in cold districts and that such oils have the required physical parameters as set forth in the present claims.

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5. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brown and Murakami as applied to claims above, and further in view of WO 9314178.

Brown has been discussed above. Brown fails to teach the addition of at least one alkylphenol-aldehyde resin. However, WO teaches this difference.

WO teaches an additive composition for improving the cold flow properties of fuel oil comprising an alkylphenol-aldehyde resin (see abstract; page 4, lines 9-11; page 5, lines 14-16).


It would have been obvious to one of ordinary skill in the art to include an alkylphenol-aldehyde resin because WO teaches that demulsifiers such as alkylphenol-aldehyde resins improve the cold flow properties of fuel oils (see page 2, lines 1-5).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cephia D. Toomer whose telephone number is 571-272-1126. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Cepha D. Toomer  
Primary Examiner  
Art Unit 1714

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